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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/681,068	10/07/2003	Andrew S. Hildebrant	10030549-1	8619

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EXAMINER	
LEIVA, FRANK M	

ART UNIT	PAPER NUMBER
3714	

MAIL DATE	DELIVERY MODE
05/15/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/681,068	HILDEBRANT ET AL.	
	Examiner	Art Unit	
	Frank M. Leiva	3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *03 November 2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. No amendments were forwarded with the response of November 3rd, 2006, and thus all rejections are maintained as follow.

Double Patenting

2. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

3. Claims 1, 3-7, 12 & 17 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-6 & 10-13 of copending Application No. 10/666,024. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented. In addition, the examiner user rationale reasoned from legal precedent that an omission of an element with the consequent loss of its function is deemed obvious. See In re Kuhle, 188 U.S.P.Q.7.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 1-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. This disclosure fails to state or teach one of ordinary skill in the art how billing predictor 104

"uses the required memory to estimate a cost to execute the test vectors". No working examples disclosing the necessary operation have been provided. Without this disclosure, one skilled in the art cannot practice the invention without undue experimentation because of unknown operation of the billing predictor. Since claims 2-7 are dependent on claim 1, claims 9-12 are dependent on claim 8 & claims 14-17 are dependent on claim 13 these claims are also rejected.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. When referring to independent claims 1, 8 & 13, the examiner is unclear as to how the required memory is determined. The applicant uses this claim terminology: "determining a required memory needed to execute the plurality of test vectors". The examiner is also unclear as to how the cost will be estimated. The applicant states within the Specification that different calculations can be used, but does not state any of the methods as to how the cost will be calculated. The applicant uses this claim terminology: "using the required memory to estimate a cost to execute the test vectors". Since claims 2-7 are dependent on claim 1, claims 9-12 are dependent on claim 8 & claims 14-17 are dependent on claim 13 these claims are also rejected.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes, Jr. (U.S. Patent Number 4,493,079) in view of Regelman et al. (U.S. Patent Number 6,574,626).

10. **Claim 1:** Hughes, Jr. discloses a method comprising: reading a test file having a plurality of test vectors (column 3 lines 58-61). *Hughes, Jr. does not disclose determining a required memory needed to execute the plurality of test vectors and using the required memory to estimate a cost to execute the test vectors.* However, Regelman et al. teaches determining a required memory needed to execute the plurality of test vectors (column 2 lines 31-34); and using the required memory to estimate a cost to execute the test vectors (*the examiner views this limitation as since the required memory is determined, the estimated cost can be determined. In addition, the estimated cost is determined based on how much memory is required. Since the memory is costly then we the public would know that the estimated cost will also be costly.)* It would have been obvious to one of ordinary skill in the art at the time the invention was made to include determining a required memory and estimating the cost, as disclosed by Regelman, incorporated into Hughes, Jr. so that cost effective memory can be used to satisfy the problem.

11. **Claim 2:** It is inherent in Hughes, Jr., as modified by Regelman et al., to receive a billing scheme and wherein using the required memory to estimate a cost includes using the billing scheme to estimate the cost to execute the test vectors (*Estimating a cost requires a billing scheme of Regelman et al.*).

12. **Claim 3:** Hughes, Jr., as modified by Regelman et al., teaches that determining a required memory comprises determining a required memory needed for each of a plurality of boards (integrated circuit wafer of Regelman et al.) of a tester to execute the test vectors for the board (*column 4 lines 13-19).*

13. **Claim 4:** Hughes, Jr., as modified by Regelman et al., teaches that determining a required memory comprises determining a required memory needed for each of a plurality of pins (test points/channels of Regelman et al.) of a tester to execute the test vectors for the pin (*column 4 lines 5-20 of Regelman et al.).*

14. **Claim 5:** Hughes, Jr., as modified by Regelman et al., teaches that determining a required memory comprises counting the number of test vectors for each of one or more tests in the test file (*column 2 lines 21-24 of Regelman et al.*).

15. **Claim 6:** Hughes, Jr., as modified by Regelman et al., teaches determining a first memory requirement needed for a first pin of a tester to execute the test vectors for a first test in the test file; setting the required memory equal to the first memory requirement; and for each additional pin of the tester, determining a second memory requirement needed for the additional pin to execute the test vectors for the first test; and if the second memory requirement is greater than the first memory requirement, setting the required memory equal to the second memory requirement (column 20 lines 50-54 of Regelman et al.).

16. **Claim 7:** Hughes, Jr., as modified by Regelman et al., teaches further comprising for each additional test in the test file: for each pin of the tester, determining a third memory requirement for the pin to execute the test vectors for the additional test; and setting the requires memory equal to the third memory requirement if the third memory requirement is greater than the required memory (column 5 lines 16-28 of Hughes, Jr. and column 20 lines 50-54 of Regelman et al.).

17. **Claims 8 & 13:** Rejected under similar rationale as set forth in claim 1.

18. **Claim 9:** Hughes, Jr., as modified by Regelman et al., discloses further comprising a user interface to display the cost to a user (the examiner views this limitation as since Hughes, Jr. uses a computer, this computer can be used to display the cost; To do so is merely programming).

19. **Claims 10 & 15:** Rejected under similar rational as set forth in claim 3.

20. **Claims 11 & 16:** Rejected under similar rational as set forth in claim 4.

21. **Claim 12:** Rejected under similar rational as set forth in claim 5.

22. **Claim 14:** Rejected under similar rational as set forth in claim 2.

23. **Claim 17:** Rejected under similar rational as set forth in claim 6.

Response to Arguments

24. Applicant's arguments filed 3rd of November 2006 have been fully considered but they are not persuasive. Because;

25. **In regards to the argument directed to the 35 USC § 112 First paragraph** rejection of claims 1-17, the applicant points to paragraphs [0017], [0023], and [0024], "stating the use of the memory determined by logic to estimate a cost to execute the test vectors", in which the examiner fails to understand how to exactly estimate the cost on the given information. The examiner still requires undue experimentation to make this statement work. 35 USC § 112 1st paragraph simply requires that applicant to the best of his knowledge, set forth the best mode of operation or practice of his invention at the time of filling his application. Applicant may not conceal the specifics of the preferred invention and disclose to the public only the broad or second best mode of operation.

26. **In regards to the argument directed to the 35 USC § 112 Second paragraph** rejection of claims 1-17, the applicant points to paragraphs [0014], [0015], and [0016], ¶ [0014] states, "By way of example, the number of test vectors for each test in the test file may be counted and the required memory may be determined to be equal to the number of test vectors", the examiner points to the phrase "may be determined to be equal" as to mean that there is more to it not told, ¶ [0015 and 0016] continue to contradict the previous statement and to conclude in ¶ [0016] stating, "a required memory needed for each board may be determined by determining the memory requirements for the pins", the examiner understands using the specifications to understand the claims, but when the specifications offer no explicit definition it is difficult for the examiner to read what is the claimed invention.

27. In regards to the argument directed to the 35 USC § 103(a) rejection of claims 1-17, the arguments are found not persuasive for the following reasons;

28. In regards to the argument directed to the rejection of claim 1, the applicant point to a single reference of Regelman where he states that the obvious is to increment the size of

the memory and it continues to say in lines 38-48, "An alternative to the SRAM is the DRAM. Disadvantageously, there is a significant read latency .... There is a need therefore, for the method and apparatus of using the cost effective DRAM for storage of executable software while optimizing tester performance through the appropriate management of the SRAM and DRAM memories", and continues in column 7:13-19, to explain the delicate choices to make between performance and cost when designing the test machine.

29. In regards to the argument directed to the rejection of claim 8, the applicant points to the use of logic to read a test file, the examiner points out that without a program in memory the machine cannot read anything and that a program is a set of instructions which carry in it many logical decision making instructions. Perhaps a better reference to this particular limitation would be Regelman's claim 1.

30. In regards to the argument directed to the rejection of claim 13, the applicant points to Regelman's teachings of determining a require memory needed to execute the plurality of test vectors, the examiner points to column 2:21-24, "In order to properly test larger memories the tester must be equipped with a significant amount of memory to properly store all of the test vectors that comprise a single test program', and that it is inherent for all of these systems to calculate the amount of memory that will be required to test before the tester is built.

31. In regards of the arguments of dependency for the rest of the claims dependent on claims 1, 8, and 13 they remain rejected for the reasons mentions above.

Conclusion

32. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until

after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank M. Leiva whose telephone number is (571) 272-2460. The examiner can normally be reached on M-Th 8:30am - 5:pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FML
05/10/2007

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